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Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20554

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FEDERAL COMMUNICATIONS COMMISSION
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In the Matter of	)	
	)	
Deployment of Wireline Services Offering Advanced Telecommunications Capability	)	CC Docket No. 98-147
	)	
and	)	
	)	
	)	
Implementation of the Local Competition Provisions of the Telecommunications Act of 1996	)	CC Docket No. 96-98

COMMENTS OF BELLSOUTH CORPORATION

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COMMENTS OF BELLSOUTH CORPORATION

BellSouth Corporation, for itself and its wholly owned affiliates (collectively "BellSouth"), submits the following comments in response to the *Third Further Notice of Proposed Rulemaking* in CC Docket No. 98-147 and *Sixth Further Notice of Proposed Rulemaking* in CC Docket No. 96-98.[1]

I. INTRODUCTION AND SUMMARY

The Commission's stated purpose for this *Notice* is to explore ways that a competitive local exchange carrier ("CLEC") can obtain access to the high frequency portion of the copper

[1] *In the Matter of Deployment of Wireline Services Offering Advanced Telecommunications Capability and Implementation of the Local Competition Provisions of the Telecommunications Act of 1996*, CC Docket Nos. 98-147 and 96-98, *Third Report and Order on Reconsideration in CC Docket No. 98-147, Fourth Report and Order on Reconsideration in CC Docket No. 96-98, Third Further Notice of Proposed Ruling in CC Docket No. 98-147 and Sixth*

subloop in circumstances where the incumbent local exchange carrier ("ILEC") has deployed fiber in the loop. This type of an arrangement occurs when the ILEC has implemented a fiber-fed digital loop carrier ("DLC") system between a central office ("CO") and a remote terminal ("RT").[2] In order to accommodate CLECs in the provisioning of digital subscriber line ("DSL") services where a DLC has been deployed, the *Notice* proposes several different alternatives to allow CLECs the capability to line share over the feeder portion of the loop. Some of these suggestions, however, have serious flaws. For example, the *Notice* proposes an arrangement in which CLECs could obtain access to the high frequency portion of the loop by utilizing a combination voice and data line card in the ILEC's RT. As discussed herein, however, such an arrangement is not feasible for BellSouth because the majority of its DLCs are not designed for the use of line cards. Accordingly, the Commission cannot institute requirements on a one-size-fits-all basis, especially where such requirements would require an ILEC to incur significant network costs in building or upgrading to a superior network beyond what is currently in place.

Another example of a flawed proposal is the suggestion of treating the fiber feeder between the CO and RT as shared transport. BellSouth demonstrates in these comments the Commission's rules do not allow for such a definition and to make such a change is a serious policy shift that will have significant ramifications in areas other than advanced services.

As to the other proposals in the *Notice*, BellSouth already adopted many of them, such as the provision of dark fiber and the provision of a dedicated transmission path over the DLC fiber

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Further Notice of Proposed Rulemaking in CC Docket No. 96-98, FCC 01-26, released January 10, 20001 ("*Notice*").

[2] The portion of the loop between the CO and the RT is commonly referred to as the "feeder" and the portion from the RT to the customer premises is referred to as the "distribution."

feeder, where facilities are available. Accordingly, further Commission rules on this subject are not necessary.

Finally, the Commission must not require unbundling of equipment used in the provision of advanced services. The notion of establishing a combination of network elements so that CLECs may provide advanced services without investing in their own facilities is not only contrary to previous Commission decisions,[3] but as BellSouth describes herein, also jeopardizes future investment and innovation in advanced services equipment. The Commission must therefore follow its own precedent from the *UNE Remand Order*, including the well-developed factual record supporting such precedent, and not unbundle advanced services equipment.

II. NOTICE ISSUES

The following discussion focuses on the various methods the *Notice* identifies as ways by which a CLEC can access the high frequency portion of a loop where an ILEC has deployed a fiber feeder in the loop to an RT. Some of these methods, particularly the line card method, are not feasible for BellSouth because of the current DLC architectures that BellSouth has implemented. BellSouth has already adopted many of the other methods suggested in the *Notice*.

A. Line Cards

In the event the ILEC is using a DLC architecture, the *Notice* seeks comment on whether a requesting carrier may physically or virtually collocate its line card at the RT by installing the line card in the ILEC's DLC for the purpose of line sharing. Such an arrangement will not work in the vast majority of DLCs in the BellSouth territory. Moreover, even in the one DLC

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[3] *See Implementation of the Local Competition Provisions in the Telecommunication Act of 1996*, CC Docket No. 96-98, *Third Report and Fourth Further Notice of Proposed Rulemaking*, 15 FCC Rcd 3696 (1999) ("*UNE Remand Order*").

architecture employed by BellSouth that uses a combined voice and data line card, a simple plugging of the card into the DLC is not the only work necessary for the provisioning of DSL services to a customer by a CLEC.

The Commission cannot mandate requirements regarding a DLC system that is completely incompatible with BellSouth's current DLC network. Such a mandate would require BellSouth to implement a network for its competitors superior to the one it has deployed for itself.[4] Where BellSouth has deployed a DLC network architecture that will allow a CLEC to use line cards, BellSouth is willing to negotiate a virtual collocation arrangement with the CLEC. BellSouth is strongly opposed to a CLEC's physically collocating a line card in the RT, however. This imposes an extreme security risk that does not exist with collocating in a central office.[5] Imposing physical collocation of line cards in an RT of an ILEC will not allow the ILEC to properly secure its network in a way envisioned throughout all of the Commission's collocation orders.[6] The Commission can ensure that CLECs have access to the high frequency portion of the loop in ways that do not require the ILEC to build a network superior to the one it now employs or increase risk to its network. Indeed, many of the other methods suggested in the

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4 *See Iowa Utilities Board v. FCC*, 120 F.3d 753, at 813 (8th Cir. 1997), *aff'd in part, reversed in part and remanded sub nom. AT&T v. Iowa Utilities Board,* 525 U.S. 366 (1999) *("Iowa Utilities Board").*

5 CLEC personnel would have unsupervised access to ILEC and other CLEC equipment and services if physical collocation of line cards where required in an RT.

6 *See In the Matter of Deployment of Wireline Services Offering Advanced Telecommunications Capability*, CC Dkt. No. 98-147, *First Report and Order and Further Notice of Proposed Rulemaking*, 14 FCC Rcd 4761, at 4785 ¶ 42 (ILECs "may take reasonable steps to protect its own equipment, such as enclosing the equipment in its own cage, and other reasonable security measures..."); *see also, In the Matter of Implementation of the Local Competition Provisions in the Telecommunications Act of 1996*, CC Docket No. 96-98, *First Report and Order*, 11 FCC Rcd 15499, 15693 ¶ 598 (1996)("*Interconnection Order*"), *modified on reconsideration*, 11 FCC Rcd 13042 (1996), *vacated in part, Iowa Utilities Bd v. FCC*, 120

Notice, which BellSouth currently provides to CLECs, where available, are more than adequate to provide CLECs the access they need.

To best address the Commission's inquiry regarding the use of line cards and why their use as suggested in the *Notice* is impractical for BellSouth, the Commission must first understand the different architectures BellSouth employs to provision DSL in conjunction with DLCs.[7] The most common architecture utilized by BellSouth for the provisioning of ADSL to customers served via a DLC is an "remote-DSLAM" type arrangement. Under this arrangement, a digital subscriber line access multiplexer ("DSLAM"), or DSLAM-like device, such as a mini-RAM,[8] is deployed at an existing DLC site. The voice circuit, which is provided by a conventional DLC line card, is connected to the splitter -- where it is also connected to an ADSL Transceiver Unit. The combined voice and ADSL circuit is then connected to the sub-loop between the RT and the feeder distribution interface ("FDI"). Under this type of architecture, neither BellSouth nor a CLEC can presently add (or replace) the DLC line card in order to provide ADSL service. Technology advancements are in development, however, that would provide for integrated voice and ADSL in these existing DLC systems. Even once such technology is developed and readily available, the Commission cannot simply require ILECs to implement a broad-brush change to its existing architecture. Conversion to line cards will not only require a tremendous amount of cost to change and upgrade current facilities used in the remote-DSLAM arrangement, but would also leave BellSouth with a significant amount of

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F.2d 753 (8th Cir. 1997), *aff'd in part and rev'd in part sub nom. AT&T Corp. v. Iowa Utilities Board*, 525 U.S. 366 (1999).

[7] BellSouth's use of the term DLC herein is meant to denote a device used to multiplex several voice circuits over a smaller number of digital lines.

[8] A mini-RAM has the same characteristics as a very small DSLAM.

unrecoverable investment in RT collocated DSLAMs and other equipment. CLECs can provide ADSL under the same type of arrangement currently used by BellSouth -- by collocating a DSLAM at the RT or where such collocation is not available by purchasing unbundled packet switching following the requirements established in the *UNE Remand Order*.

BellSouth's next most commonly used architecture is fiber-in-the-loop ("FITL"). This arrangement involves the use of fiber from a remote digital terminal ("RDT") to an optical network unit ("ONU") very near the end-user. If several "up-front" measures have been taken in this architecture, ADSL may be provided with a vendor-specific card in the ONU.[9] These up-front measures include the placement of vendor-specific equipment at the ONU, RDT and CO, the establishment of an ATM circuit, and a software upgrade. Existing ONUs do not have integrated voice and ADSL cards, instead the data circuitry resides on an integrated optical interface card. It is physically impossible to add an additional card to this proprietary interface. Current development anticipates that future generation cards will have a separate data card and voice card that will make provisioning a virtual data circuit to the CLEC's point of presence possible.

Finally, BellSouth has a small number of the DLC systems like those the *Notice* specifically describes as allowing CLECs to either physically or virtually collocate in the DLC. These systems are of the type referenced in the *Project Pronto Order*.[10] In these systems,[11] the

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[9] Use of the card requires that the necessary mapping of the end-user's data is made back to the end-user's pre-subscribed Internet service provider ("ISP").

[10] The *Notice* describes the architecture from Project Pronto as allowing an ILEC, whose RT equipment provides DSLAM functionality through the use of a line card, to split the high and low frequency portions of the loop at the RT and route the data traffic from the high frequency portion to the ILEC's CO. Under this arrangement, the voice and data traffic are routed on separate fiber paths back to the CO. In the CO, the ILEC can separate data traffic of its customers from the data traffic of the customers of CLECs, and route the data traffic of the

DLC vendors have made available a combined voice and ADSL "line card." This line card in and of itself, however, is not sufficient to provide ADSL. Like the FITL arrangement described above, several "up-front" measures must be taken to permit deployment of ADSL. These measures include placing additional common equipment and performing software upgrades. Moreover, even after these measures are taken, line cards cannot simply be interchangeably placed in the DLC to provision ADSL to a customer.[12] There must be some action taken -- on an individual customer-by-customer basis -- to map the data from that card back into the ATM network.

For cost efficiency reasons, BellSouth deployed DLC in its loops long before the enactment of the Telecommunications Act of 1996 ("1996 Act"). Moreover, BellSouth has been aggressively pursuing the provisioning of ADSL. BellSouth employed the above described remote-DSLAM arrangement in many cases where combined line cards are now becoming feasible because DLC vendors have only recently made "combination line cards" available. As the above discussion clearly demonstrates, simply allowing a CLEC to place its line card in a DLC is not sufficient to the provision of ADSL. Indeed, in most of the DLCs deployed in BellSouth's region, as those described in the remote-DSLAM discussion above, a combined voice and data card cannot be deployed in the network. Even where a combination voice and

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customers of a CLEC to the CLEC's collocation area. *Notice* ¶ 59. *Also see Ameritech Corp., Transferor, and SBC Communications, Inc., Transferee, for Consent to Transfer Control of Corporations Holding Commission Licenses and lines pursuant to Section 214 and 310(d) of the Communications Act*, CC Docket No. 98-141, *Second Memorandum Opinion and Order*, 15 FCC Rcd 17521, at 17528, ¶ 14 and n.34 ("*Project Pronto Order*").

[11] This system is sometimes referred to as a Next Generation Digital Loop Carrier ("NGDLC"). BellSouth has not used that term within these comments because, at least in theory, combined voice and ADSL line cards could be developed for legacy DLC systems such as BellSouth's remote-DSLAM arrangement.

[12] This is sometimes referred to as "plug and play."

data card may be available for the DLC system, its placement is not sufficient to ensure ADSL. To require the investment necessary to allow combination voice and data cards would require BellSouth to build a network for its competitors superior to that it presently provides for itself. The courts have already determined that such a requirement is unlawful.[13]

B. Dark Fiber and Subloops

In the *Notice*, the Commission seeks comment on the availability and possible use by CLECs of dark fiber where it is readily available.[14] The *Notice* recognizes limitations to the use of dark fiber including whether space, power, and other prerequisites, *e.g.*, heating, ventilating and air-conditioning capability, exists at the RT for the installation of the electronics necessary to light the fiber.[15] BellSouth provides this option to CLECs today where it is available, subject to certain limitations.

First, BellSouth does not have an abundance of dark fiber available in the feeder portion of the loop between the CO and the RT. Most of the fiber that has been deployed as feeder is lit and is being used. Thus, this solution would not be very effective, at least in the BellSouth region. Second, as the *Notice* acknowledges, where dark fiber is available in the feeder, in order to provide transmission, the proper electronics must be collocated at the RT to light the fiber; and collocation space at an RT is limited. However, where such space is available, a CLEC can collocate their equipment necessary to transmit over the fiber pursuant to the current collocation rules. Of course for such an arrangement to work, the equipment must be housed in a cabinet capable of enduring the elements. Moreover, within the cabinet, the CLEC must have an

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13 *Iowa Utilities Board*, 120 F.3d at 813.

14 *Notice* ¶ 57.

15 *Id.*

adequate electrical supply to power the electronics used to light the fiber and have proper cooling equipment to ensure that the electronics do not become overheated. Accordingly, while BellSouth believes the Commission's proposal for the lease of dark fiber by CLECs has some merit, the Commission must, nevertheless, recognize that such situations are limited to where dark fiber is available and space and electrical supply are adequate to house and power equipment to light the fiber. BellSouth has and will provide dark fiber to CLECs in these situations.

C. All-copper Loop Alternative

In situations where a CLEC is unable to collocate its equipment in the RT, the *Notice* asks about the viability of an ILEC migrating customers served by the DLC onto an all-copper loop, if available. Similar to the provision of dark fiber, BellSouth will currently provide a CLEC with an all-cooper loop at the CLEC's request subject to several limitations. The first limitation is availability. By virtue of its having deployed a DLC, BellSouth has very few all-copper loops available from the CO to a customer's premise. The very architecture of DLC was designed to eliminate the need to run an individual copper pair from the CO to each customer's place of business or residence. Thus, there are few instances in the BellSouth territory where all-copper loops will be available from the CO to the customer's premises.

In addition to the lack of available all-copper loops, even when an all-copper loop does exist between the CO and the customer's premises, the loop may be of limited use to a DSL provider if it is greater than 18,000 feet. As was discussed in detail in comments filed in the

advanced services proceeding regarding line sharing,[16] the provision of ADSL service, which is the type of DSL most commonly deployed by CLECs, is generally limited to loops no longer than 18,000 feet. Beyond 18,000 feet, the signal for ADSL, using typical ADSL technology, becomes weak and distorted. While the Commission has required ILECs to condition loops longer than 18,000 feet for the provisioning of ADSL for a requesting CLEC, this requirement applies only when such conditioning will not significantly degrade the ILEC's voice grade service.[17] Part of conditioning a loop for DSL service requires that the ILEC remove load coils which act as signal boosters for voice grade services. When a loop extends beyond 18,000 feet, these load coils are usually needed to avoid significant degradation in the voice service. Accordingly, where all-copper loops exist between the CO and the customer's premises, if they extend beyond 18,000 feet, they must be tested to ensure that voice grade services may be provided over the loop without significant degradation. BellSouth anticipates that the majority of the loops over 18,000 feet will suffer significant degradation in voice quality and therefore will not be available for ADSL service.

D. Fiber Sharing for the Feeder Portion of the Loop

The *Notice* seeks comment on various ways the ILECs and CLECs might share the fiber feeder between the CO and the RT. These possibilities include the ILEC and CLEC sharing the fiber feeder, making the fiber feeder shared transport, and including the fiber feeder as part of unbundled packet switching.

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[16] *See e.g., In the Matters of Deployment of Wireline Services Offering Advanced Telecommunications Capability and Implementation of the Local Competition Provisions of the Telecommunications Act of 1996*, CC Docket Nos. 98-147 and 96-98, *Third Report and Order in CC Docket No. 98-147 and Fourth Report and Order in CC Docket No. 96-98*, 14 FCC Rcd 20912, 20953, ¶ 85 (1999) ("*Line Sharing Order*").

1. Part of the Loop

The *Notice* first asks whether it is technically feasible for competitors and incumbents to share the fiber feeder between the CO and the RT. BellSouth currently will allow a CLEC to share fiber between the CO and RT. A point of clarification is probably necessary, however, throughout the discussion of shared fiber. The use of fiber between the CO and an RT by both a CLEC and ILEC is not the equivalent of shared transport as that term is generally used. Where both a CLEC and ILEC use a fiber cable, the provision of each carrier's services over the fiber feeder is by a dedicated transmission path within the fiber feeder; each carrier's traffic is not intermingled with any other carrier's traffic over the fiber. Thus, when a CLEC obtains transmission between its DSLAM at the RT and the CO, it obtains a specific dedicated transmission path over the fiber for such transmission. Accordingly, the term "shared" is accurate in that the fiber feeder itself is shared. However, as described above, within the fiber feeder, the CLEC has its own specific dedicated transmission path.[18]

BellSouth already provides CLECs a dedicated transmission path over the fiber feeder, where available, as a sub-loop. CLECs can use this transmission path to obtain access to the high frequency portion of the loop.[19] BellSouth believes that this sub-loop transmission path on the fiber feeder is properly within the definition of the loop. The Commission does not need to make any rule changes or provide any clarification regarding this issue.

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17 *Id.*

18 This is opposed to shared transport where the traffic on the fiber is intermingled with all other traffic and no specific dedicated transmission path is used for any individual set of traffic.

19 Access to the line sharing element through the use of a fiber feeder transmission path requires the CLEC to collocate equipment, typically a DSLAM, at the RT.

2. Part of Shared Transport

The *Notice* asks whether the fiber feeder is more similar to shared transport than a portion of the loop. Shared transport, as specifically defined by the Commission in the *Notice*, is the transmission facilities shared by more than one carrier between the ILEC's end office switches, between end office switches and tandem switches, and between tandem switches in the ILEC's network. This definition clearly does not include the fiber feeder between the CO and the RT. Recognizing the definition's inability to include the fiber feeder, the *Notice* seeks comment on whether the RT and the equipment therein should be considered an end office switch for purposes of the Commission's unbundling rules. An RT is not and cannot be an end office switch. An RT does not have the same capabilities or functions as an end office switch. RTs used in the provision of traditional DLC are merely devices that multiplex and de-multiplex multiple channels over a high-bandwidth, electrical distribution facility. Even with the advancement of new generations of DLCs, the RT does not replace or take on the functions of a switch.

Additionally, the Commission has defined the local loop as "a transmission facility between a distribution frame (or its equivalent) in an ILEC central office and an end user customer premises."[20] Thus, the RT is merely a point on the loop as the Commission has defined the loop. Accordingly, not only would the Commission have to change the definition of shared transport to include devices that are not switches but would also have to redefine the loop. This would have ramifications well beyond advanced services and would impact voice services, especially the pricing. For example, if the Commission included an RT in the definition of a

[20] 47 C.F.R. § 51.319(a)

switch for shared transport and if a customer was served by an RT, the loop could no longer be defined as a transmission facility between a frame and the end user. The loop would have to be defined as a transmission between the RT and the end-user. Loop costs, however, are calculated on the entire path from the central office to the end user. Likewise, shared transport costs do not reflect feeder cable. To take the feeder cable out of the loop definition and include it as part of shared transport would require a total reevaluation of costs. Such broad changes without considering the across-the-board impacts is bad policy. Accordingly, the Commission should not change the definition of shared transport to attempt to include fiber feeder cable within that definition.

3. Fiber Sharing - Part of Unbundled Packet Switching

The *Notice* next seeks comment on whether the CLECs should receive shared transport when it purchases unbundled packet switching capability.[21] The *Notice* states that under current rules, when a requesting carrier purchases unbundled circuit switching, it also receives shared transport. The *Notice* then asks when a CLEC purchases the unbundled packet switching capability, does it also receive the shared transport functionality? As discussed above, by definition, shared transport is the transmission facilities shared by more than one carrier between the ILEC's end office switches, between end office switches and tandem switches, and between tandem switches in the ILEC's network. Thus, when a CLEC purchases unbundled packet switching it does receive shared transport from the end office switch, usually an ATM switch, to other end office or tandem switches. The *Notice* further asks, however, if by purchasing

[21] Pursuant to the *UNE Remand Order*, an ILEC must unbundle packet switching where the ILEC has: deployed DLC; there are no spare copper loops capable of supporting the xDSL services that the CLEC seeks to offer; the CLEC is unable to collocate its DSLAM at the RT; and the ILEC has deployed packet switching capability for its own use.

unbundled packet switching, should the CLEC gain access to the ATM (or equivalent) switch at the central office as well as the line card (or DSLAM equivalent) at the RT, indicating that the shared transport should include the fiber feeder. As previously discussed, transmission between the CO and the RT does not fit the definition of shared transport and therefore is not, and should not be, included with the purchase of unbundled packet switching. The fiber between the CO and the RT is clearly a sub-loop portion of the loop and should be acquired as such.

Just as when a CLEC collocates its DSLAM at the RT and acquires a dedicated transmission path over the fiber feeder to the CO, when a CLEC purchases unbundled packet switching, the CLEC acquires this transport functionality over the fiber feeder sub-loop. The CLEC then has access to the line-sharing element over the distribution portion of the loop to the CLEC's end-user customer. Therefore, the Commission does not need to amend its rules to allow line sharing when fiber is deployed in the loop, no matter whether the CLEC collocates its DSLAM at the RT or, assuming the requirements of the *UNE Remand Order* are met, it purchases unbundled packet switching.

Finally, the *Notice* asks, regardless of whether such shared access is defined as part of the loop, packet switching capability, or shared transport, should such shared access be made available only in instances where a competitor is unable to collocate at the RT, or should this type of access be required in all circumstances in which an incumbent has deployed fiber in the loop. BellSouth has demonstrated herein that the fiber feeder between the CO and the RT is not shared transport but is simply a sub-loop element. Where available, BellSouth provides this sub-loop element to CLECs regardless of whether the CLEC has collocated at the RT or, pursuant to

the requirements in the *UNE Remand Order*, has purchased packet switching as an unbundled element. The Commission appears to be trying to solve a problem that does not exist.

E. UNE-data Platform - A New Combination of Network Elements

The last part of the *Notice* deviates from issues regarding access to the line-sharing element when a DLC is deployed and seeks comment on whether a combination of network elements ("UNE-P") should be required for data as it is required for voice. This question implies that the Commission is willing to completely abandon the past three years of its findings regarding advanced services. The *Notice* seeks comment on how to define the combination of elements for a data platform ("UNE-data platform") and offers as one possibility "to include the loop (both feeder and distribution portions, whether copper or fiber), attached electronics, line card/DSLAM functionality, ATM switching or its equivalent, and transport."[22]

1. The Commission has Considered and Rejected Unbundling of Advanced Services Equipment

The Commission considered whether to unbundle the equipment necessary to provide advanced services in the *UNE Remand Order*. In that Order the Commission went through an extensive analysis and determined that unbundling packet switching and other equipment used to provide advanced services, *e.g.*, DSLAMs, was unnecessary except in the limited situations described in note 21, *supra*. Indeed, many CLECs filed comments supporting the position that the "Commission should not unbundle packet switching or DSLAMs generally."[23] In reaching its conclusion the Commission's analysis fully recognized that the advanced services market was

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22 *Notice* at n. 135.

23 *UNE Remand Order* at 3836, ¶ 308. *See* footnote 608 of the *UNE Remand Order* citing Northpoint which stated that "when competitive LECs have access to loops and collocation, any competitive LEC can provide the necessary infrastructure, *i.e.*, DSLAMS and packet switches.")

competitive and forcing ILECs to unbundle equipment used to provide those services would only impede continuing competition:

> [W]e are mindful that regulatory action should not alter the successful deployment of advanced services that has occurred to date. Our decision to decline to unbundle packet switching therefore reflects our concern that we not stifle burgeoning competition in the advanced service market. We are mindful that, in such a dynamic and evolving market, regulatory restraint on our part may be the most prudent course of action in order to further the Act's goal of encouraging facilities-based investment and innovation.[24]

Competition has only increased since the Commission reached this conclusion in the *UNE Remand Order*. The Commission must follow its findings in the *UNE Remand Order* and determine that unbundling of advanced services equipment remains unnecessary.

2. Unbundling of Advanced Services Equipment Clearly does Not Meet the Impairment Standard of the 1996 Act

In addition to the competition that should preclude the thought of unbundling advanced services equipment, such unbundling clearly does not meet the impairment requirement set forth in the 1996 Act. Before any unbundling can occur, section 251(d)(2) requires that the Commission find that carriers are impaired in their ability to deliver the services at issue. Thus, the Commission must apply the impairment test set out in its *UNE Remand Order*. In particular, the Commission must apply its impairment test to advanced services and the equipment used to provide those services where CLECs have the same opportunity as ILECs to invest in deploying facilities of their own. The Supreme Court's *Iowa Utilities Board* decision and the Commission's *UNE Remand Order* are absolutely clear that a pre-condition to compelled

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[24] *UNE Remand Order* at 3840, ¶ 316.

unbundling is a finding of impairment for the services at issue based on a careful analysis of network alternatives.

As acknowledged in the *UNE Remand Order*, section 251(d)(2) sets the standard for unbundling network elements. Network elements may only be unbundled where they meet that section's "necessary" or "impair" requirements. The statutory impair standard requires consideration of whether a carrier's ability to "provide the services it seeks to offer" would be impaired without access to a particular unbundled element. In addition to section 251(d)(2)'s explicit factors, the Commission separately weighs the effects unbundling would have on innovation and investment.[25]

Before unbundling ILEC investment used to provide advanced services so that CLECs may use such equipment to deliver advanced services, the Commission *must* analyze impairment as it relates to advanced services as well as the effect on investment and innovation in advanced services that unbundling would have. In particular, this will require record evidence and careful analysis in the following three areas. First, analysis of whether the ability of CLECs to offer advanced services would be impaired without access to advanced services UNEs at government set prices. The Commission must develop a record relevant to the ability of CLECs to offer advanced services without unbundled access to ILEC advanced services facilities. Today's "burgeoning competition," as acknowledged by the Commission, to provide advanced services exists without unbundled access to ILEC advanced services equipment envisioned by the *Notice*.[26]

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25 *UNE Remand Order* at 3745-3750, ¶¶ 101-116.

26 *UNE Remand Order* at 3840, ¶ 316.

As discussed, this competition alone would seem to preclude a finding of impairment. It is supported by a number of other Commission findings, including that the advanced services business is "nascent," that the pre-conditions of natural monopoly are absent, that several technologies are well positioned to provide advanced services to the end-user customer, and that ILECs, if anything, trail in the deployment race.[27] In this context, it is difficult to envision a factual record that would support a finding of impairment without unbundled access to the investments ILECs have made in advanced services equipment.

Second, the Commission must analyze the effects unbundling will have on investment and innovation in advanced services.[28] There are important differences between the effects of unbundling elements used to provide traditional telecommunications services and the effects of unbundling new investment used to provide advanced services. "[I]nvestments in facilities used to provide service to nascent markets are inherently more risky than investments in well established markets. Customer demand for advanced services is also more difficult to predict accurately than is the demand for well established services."[29] An important part of the Commission's reasoning to not unbundle advanced services equipment, even though traditional

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[27] *In the Matter of Inquiry Concerning the Deployment of Advanced Telecommunications Capability to All Americans in a Reasonable and Timely Fashion, and Possible Steps to Accelerate Such Deployment Pursuant to Section 706 of the Telecommunications Act of 1996*, CC Docket No. 98-146, *Second Report*, FCC 00-290, released August 21, 2000, at ¶¶ 70, 94-111.

[28] Even a conclusion that carriers would be impaired in their ability to offer advanced services without unbundling would not be sufficient to lead to UNE treatment of facilities used for advanced services. The Commission's multi-part test requires consideration of the effect of unbundling on investment and innovation, and the results of that analysis may determine the outcome. Thus, the Commission has determined that packet switching should not be unbundled due to the negative effects unbundling would have on ILEC investment in packet technologies.

[29] *UNE Remand Order* at 3840, ¶ 316.

services equipment had been unbundled, was to avoid stifling competition and to encourage innovation.[30] This fact remains all the more relevant today.

Third, the Commission's analysis of whether newly deployed advanced services facilities can properly be unbundled must take into the account the fact that CLECs and other firms can also choose to invest in deploying similar facilities. Thus, CLECs can choose to install ATM switches and DSLAMs, just as BellSouth has done.[31] CLEC's are not impaired by implementing this strategy. BellSouth invests significant resources in deploying equipment necessary to provide advanced services. It would be inherently unfair to allow CLECs to simply use the ILEC's equipment as unbundled network elements where the CLEC is not impeded in deploying its own equipment. Indeed, where a CLEC can deploy its own equipment, parity demands that the CLEC should deploy such equipment and not ride the investment and risk of the ILEC.

Based on these factors, the Commission cannot require the unbundling of network elements used to provide advanced services. To do so would read the necessary and impairment standard completely out of the 1996 Act. Moreover, it would have a chilling effect on ILECs' incentives to invest in the technologies upon which advanced services depend. CLECs will not have any incentive to invest in equipment to provide advanced services if they can ride the backs of, and shift investment risks to, the ILECs. Conversely, an ILEC's incentive to invest in new and innovative equipment will be stifled if its competitors, who can just as easily invest in the equipment, can take advantage of the equipment's use without incurring any of the risk.[32]

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30 *Id.*

31 The Commission has already addressed CLECs ability to provide advanced services in the limited situations where a DSLAM cannot be deployed at the RT.

32 *See e.g.*, C. Michael Armstrong, *Telecom and Cable TV:Shared Prospects of the Communications Future*, delivered to the Washington Metropolitan Cable Club (Nov. 2, 1998)

Accordingly, the Commission must abandon any notion of unbundling advanced services equipment.

III. CONCLUSION

As demonstrated within these comments, BellSouth has a significant investment in DLC facilities that will not allow a CLEC, or BellSouth for that matter, to use a combination voice and data line card to provision services to an end-user customer. For these facilities, BellSouth has collocated the necessary equipment, *e.g.*, DSLAM to provide voice and data services. The same opportunity is available to CLECs that wish to line share for the provision of data services. Moreover, pursuant to the requirements of the *UNE Remand Order* where BellSouth has deployed advanced services equipment at the RT and collocation space is not available to the CLEC, the CLEC has the option of purchasing unbundled packet switching to provision data services. Thus, some of the Commission's proposals are not feasible, and indeed none are necessary, to assure that CLECs can obtain the facilities they need from BellSouth to provide their own DSL services. Finally, the Commission should not unbundle equipment used in the provision of advanced services. A CLEC faces no impairment by not having access to this equipment available as unbundled network elements. The Commission addressed this issue in

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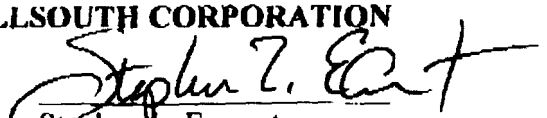
available at <<www.att.com/speeches/98/981102.maa.html. ("No company would invest billions of dollars...if competitors which have not invested a penny of capital nor taken an ounce of risk can come along and get a free ride in the investments and risks of others.")

the *UNE Remand Order* and reached the right decision. There is no basis for reversing that reasoning now.

Respectfully submitted,

BELLSOUTH CORPORATION

By: 

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Date: February 27, 2001

CERTIFICATE OF SERVICE

I do hereby certify that I have this 27th day of February 2001 served the parties of record to this action with a copy of the foregoing **COMMENTS OF BELLSOUTH CORPORATION** by hand delivery and/or by placing a true and correct copy of the same in the United States Mail, postage prepaid, and/or by Federal Express addressed to the parties on the attached service list.

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